AMENDMENTS TO THE CLAIMS

Please make the following amendments to the claims:

1. (Currently Amended) A method for providing rapid rerouting of real-time multi-media data flows, wherein each flow comprises packets flowing between a first endpoint and a second endpoint, wherein each endpoint comprises a network address and source port, the method comprising the steps of:

receiving a plurality of data ~~packet~~ packets at a first endpoint from a second endpoint, each of the packets corresponding to a first flow;

determining a translated source address and a translated destination address for each ~~from~~ said data packet; and

~~determining a~~ selecting one forwarding destination for each data packet from a plurality of forwarding destinations when [[if]] more than one path to the translated destination address ~~of said data packet~~ is available ~~provided~~, wherein said selecting is based on flow quality statistics associated with the first flow.

2-4. (Cancelled)

5. (Original) The method of claim 1, wherein said data packet is a real-time protocol (RTP) data flow packet.

6. (Currently Amended) The method of claim 1, further comprising the step of performing flow processing wherein said step of performing flow processing further comprises the steps of:

determining a source address and a destination address ~~for~~ of said data packet;

determining if a flow transform record (FTR) is located within said first endpoint;

if said FTR exists within said first endpoint, retrieving said FTR and determining whether to translate said source address, said destination address, or both said source address and said destination address in accordance with said retrieved FTR;

determining if said data packet is a real-time control protocol (RTCP) data packet; and

if said data packet is an RTCP data packet, processing said RTCP data packet to determine flow quality statistics.

7. (Original) The method of claim 1, further comprising the step of removing a multi-protocol label switching (MPLS) tag from said data packet.

8. (Original) The method of claim 7, wherein said step of removing said MPLS tag from said data packet is performed if specified by a flow transform record located within said first endpoint.

9. (Original) The method of claim 1, wherein said step of determining a forwarding destination is performed by determining and analyzing flow quality statistics for each of said destination addresses.

10. (Original) The method of claim 1, further comprising the step of performing traffic measurement on said received data packet.

11. (Original) The method of claim 1, further comprising the step of applying quality of service characteristics to said data packet, wherein said application allows for guaranteed bandwidth for transmission of said data packet within a data flow.

12. (Original) The method of claim 11, wherein said step of applying quality of service characteristics provides for policing and shaping of said data flow.

13-14. (Cancelled)

15. (Currently Amended) A system for providing rapid rerouting of real-time multi-media data flows, wherein each flow comprises packets flowing between a first endpoint and a second endpoint, wherein each endpoint comprises a network address and source port, the system comprising:

a first endpoint, connected to a second endpoint, wherein said first endpoint comprises;

a transceiver;

software stored within said first endpoint defining functions to be performed by said first endpoint; and

a processor configured by said software to perform the steps of:

receiving a plurality of data packets at the first endpoint from the second endpoint, each of the packets corresponding to a first flow;

determining a translated source address and a translated destination address for each ~~from~~ said data packet; and

~~determining a~~ selecting one forwarding destination for each data packet from a plurality of forwarding destinations when [[if]] more than one path to the translated destination address ~~of said data packet~~ is available ~~provided~~, wherein said selecting is based on flow quality statistics associated with the first flow.

16-18. (Cancelled)

19. (Original) The system of claim 15, wherein said data packet is a real-time protocol (RTP) data flow packet.

20. (Currently Amended) The system of claim 14, wherein said processor is further configured to perform the step of performing flow processing, wherein said step of performing flow processing further comprises the steps of:

determining a source address and a destination address ~~for~~ of said data packet;

determining if a flow transform record (FTR) is located within said first endpoint;

if said FTR exists within said first endpoint, retrieving said FTR and determining whether to translate said source address, said destination address, or both said source address and said destination address in accordance with said retrieved FTR;

determining if said data packet is a real-time control protocol (RTCP) data packet; and

if said data packet is an RTCP data packet, processing said RTCP data packet to determine one or more flow quality statistics.

21. (Original) The system of claim 15, wherein said processor is further configured to perform the step of removing a multi-protocol label switching (MPLS) tag from said data.

22. (Original) The system of claim 21, wherein said processor performs said step of removing said MPLS tag from said data packet if specified by a flow transform record located within said first endpoint.

23. (Original) The system of claim 15, wherein said step of determining a forwarding destination is performed by determining and analyzing flow quality statistics for each of said destination addresses.

24. (Original) The system of claim 15, wherein said processor is further configured to perform the step of performing traffic measurement on said received data packet.

25. (Original) The system of claim 14, wherein said processor is further configured to perform the step of applying quality of service characteristics to said data packet, wherein said application allows for guaranteed bandwidth for transmission of said data packet within a data flow.

26. (Original) The system of claim 25, wherein said step of applying quality of service characteristics provides for policing and shaping of said data flow.

27-42. (Cancelled)

43. (Currently Amended) A system for providing rapid routing of real-time multi-media data ~~flow,~~ flows, wherein each flow comprises packets flowing between a first endpoint and a second endpoint, wherein each endpoint comprises a network address and source port, the system comprising:

a first endpoint, connected to a second endpoint, wherein said first endpoint comprises:

a transceiver; and

a controller programmed to perform the steps of,

receiving a plurality of data packets at the first endpoint from the second endpoint, each of the packets corresponding to a first flow;

determining a translated source address and a translated destination address for each ~~from~~ said data packet; and

~~determining a~~ selecting one forwarding destination for each data packet from a plurality of forwarding destinations when [[if]] more than one path to the translated

destination address ~~of said data packet~~ is available ~~provided~~, wherein said selecting is based on flow quality statistics associated with the first flow.

44. (Original) The system of claim 43, wherein said controller is located within an application specific integrated circuit.

45. (New) The method of claim 1, further comprising the steps of:

determining if said data packet is a real-time control protocol (RTCP) data packet; and

if said data packet is an RTCP data packet, processing said RTCP data packet to produce said flow quality statistics.

46. (New) The method of claim 1, further comprising the steps of:

detecting an interruption in a second flow received from a first one of the forwarding destinations; and

selecting a second forwarding destination as the one forwarding destination, responsive to detecting the interruption.

47. (New) The method of claim 46, wherein the detecting step further comprises:

starting a guard timer on receipt of a next packet in the second flow; and

detecting an interruption in the second flow responsive to expiration of the guard timer.

48. (New) The method of claim 1, further comprising the steps of:

detecting a plurality of flow interruptions, each interruption being an interruption in one of a plurality of flows to a first one of the forwarding destinations; and

determining the number of detected flow interruptions to be a substantial portion of the total number of flows from the first endpoint to the first one of the forwarding destinations; and

selecting a second forwarding destination as the one forwarding destination, responsive to the step of detecting the number of detected flow interruptions.

49. (New) The method of claim 1, further comprising the steps of:

detecting a failure in a link between the first endpoint and a first one of the forwarding destinations; and

selecting a second forwarding destination as the one forwarding destination, responsive to detecting the interruption.

50. (New) The system of claim 15, wherein the processor is further configured to perform the steps of:

determining if said data packet is a real-time control protocol (RTCP) data packet; and

if said data packet is an RTCP data packet, processing said RTCP data packet to produce said flow quality statistics.

51. (New) The system of claim 15, wherein the processor is further configured to perform the steps of:

detecting an interruption in a second flow received from a first one of the forwarding destinations; and

selecting a second forwarding destination as the one forwarding destination, responsive to detecting the interruption.

52. (New) The system of claim 51, wherein the processor is further configured to perform the steps of:

starting a guard timer on receipt of a next packet in the second flow; and

detecting an interruption in the second flow responsive to expiration of the guard timer.

53. (New) The system of claim 15, wherein the processor is further configured to perform the steps of:

detecting a plurality of flow interruptions, each interruption being an interruption in one of a plurality of flows to a first one of the forwarding destinations; and

determining the number of detected flow interruptions to be a substantial portion of the total number of flows from the first endpoint to the first one of the forwarding destinations; and

selecting a second forwarding destination as the one forwarding destination, responsive to the step of detecting the number of detected flow interruptions.

54. (New) The system of claim 15, wherein the processor is further configured to perform the steps of:

detecting a failure in a link between the first endpoint and a first one of the forwarding destinations; and

selecting a second forwarding destination as the one forwarding destination, responsive to detecting the interruption.

55. (New) A method for providing rapid rerouting of real-time multi-media data flows across multiple available paths in a network, the method comprising the steps of:

receiving a packet at a first media router, the packet belonging to a forward flow from a source endpoint to a destination endpoint;

detecting an interruption in a reverse flow from the destination endpoint to the source endpoint through the first media router;

selecting a forwarding destination from a plurality of forwarding destinations when more than one path to the destination endpoint is available, responsive to the interruption; and

forwarding the packet to the selected forwarding destination.

56. (New) The method of claim 55, further comprising the step of:

updating, on receipt of the packet, flow quality statistics associated with the forward flow.

57. (New) The method of claim 55, further comprising the steps of:

determining if the received packet is a real-time control protocol (RTCP) data packet; and

if the received data packet is an RTCP data packet, processing the RTCP data packet to produce one or more flow quality statistics associated with the forward flow.

58. (New) The method of claim 55, wherein the detecting step further comprises:

starting a guard timer on receipt of a next packet in the reverse flow; and

detecting an interruption in the reverse flow responsive to expiration of the guard timer.

59. (New) The method of claim 55, further comprising the steps of:

detecting a plurality of reverse flow interruptions, each reverse flow interruption being an interruption in one of a plurality of reverse flows from the destination endpoint to the source endpoint through the first media router; and

determining the number of detected reverse flow interruptions in the plurality to be a substantial portion of the total number of flows from the destination endpoint to the source endpoint through the first media router; and

selecting the forwarding destination, responsive to the step of detecting the number of detected reverse flow interruptions.

60. (New) The system of claim 55, wherein said data packet is a real-time protocol (RTP) data flow packet.

61. (New) The system of claim 55, further comprising the step of:

performing traffic measurement on the received packet.

62. (New) The system of claim 55, further comprising the step of applying quality of service characteristics to said data packet, wherein said application allows for guaranteed bandwidth for transmission of the received packet within the forward flow.

63. (New) The system of claim 62, wherein said step of applying quality of service characteristics provides for policing and shaping of said data flow.